```
=> d que stat l4
L1          3996 SEA FILE=HCAPLUS ABB=ON  (?DRUG?(W)?SCREEN?) AND (?GENE?(W)?EXP
                 RESS?)
L2           188 SEA FILE=HCAPLUS ABB=ON  L1 AND ?DIFFERENTIAT?
L3            51 SEA FILE=HCAPLUS ABB=ON  L2 AND (?STEM?(W)?CELL? OR ?MURINE?)
L4            25 SEA FILE=HCAPLUS ABB=ON  L3 AND ?EMBRYO?

=> d ibib abs l4 1-25

L4   ANSWER 1 OF 25  HCAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2003:472605  HCAPLUS
DOCUMENT NUMBER:          139:32923
TITLE:                    Islet cells from human embryonic
                          stem cells
INVENTOR(S):              Fisk, Gregory J.; Inokuma, Margaret S.
PATENT ASSIGNEE(S):       Geron Corporation, USA
SOURCE:                   PCT Int. Appl., 39 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ----------------  ----  --------      ---------------  --------
     WO 2003050249      A2   20030619      WO 2002-US39089  20021206
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     US 2003138948      A1   20030724      US 2002-313739   20021206
PRIORITY APPLN. INFO.:                  US 2001-338885P  P  20011207
AB   This disclosure provides a system for producing pancreatic islet cells
     from embryonic stem cells.
     Differentiation is initiated towards endoderm cells, and focused
     using reagents that promote emergence of islet precursors and mature
     insulin-secreting cells.  High quality populations of islet cells can be
     produced in com. quantities for use in research, drug
     screening, or regenerative medicine.

L4   ANSWER 2 OF 25  HCAPLUS  COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER:         2003:221703  HCAPLUS
DOCUMENT NUMBER:          138:253104
TITLE:                    Methods for serial analysis of gene
                          expression of renal dipeptidase in colorectal
                          tumors and their use in diagnosis
INVENTOR(S):              Buckhaults, Phillip; Kinzler, Kenneth W.; Vogelstein,
                          Bert
PATENT ASSIGNEE(S):       The Johns Hopkins University School of Medicine, USA
SOURCE:                   PCT Int. Appl., 59 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
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FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003022863	A1	20030320	WO 2002-US28518	20020909

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-317494P P 20010907
US 2002-383805P P 20020530

AB Serial anal. of **gene expression** (SAGE) was used to identify transcripts encoding secreted or cell-surface proteins that were expressed in benign and malignant tumors of the colorectum. A total of 290,394 tags were analyzed from normal, adenomatous and cancerous colonic epithelium. Of the 21,343 different transcripts obsd., 957 were found to be differentially expressed between normal and adenoma or between normal and cancer. Forty-nine transcripts were elevated .gtoreq. 20-fold in adenomas, 40 transcripts were elevated .gtoreq. 20-fold in cancers, and nine transcripts were elevated .gtoreq. 20-fold in both. The product of six of these nine transcripts (TGFBI, LYS, RDP, MIC-1, REGA, and DEHL) were predicted to be secreted or to reside on the cell surface and these were analyzed in more detail. The abnormal expression levels predicted by SAGE were confirmed by quant. PCR analyses of each of these six genes. Moreover, the cell types responsible for the elevated expression were identified by in situ hybridization and by PCR analyses of epithelial cells immunoaffinity purified from primary tumors.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:202778 HCAPLUS
DOCUMENT NUMBER: 138:233035
TITLE: Nucleic acid and polypeptide sequences for human .beta.-cell specific insulin-related transcription factor MafA and uses thereof
INVENTOR(S): Sharma, Arun
PATENT ASSIGNEE(S): Joslin Diabetes Center, Inc., USA
SOURCE: PCT Int. Appl., 170 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020894	A2	20030313	WO 2002-US27600	20020830

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003087394 A1 20030508 US 2002-232563 20020830
PRIORITY APPLN. INFO.: US 2001-316453P P 20010831

AB The invention claims mammalian insulin related transcription factor MafA polypeptides, nucleic acids, and vectors and host cells contg. them. The invention further claims nucleic acid sequences of the human MafA gene promoter and their use for regulation of MafA **gene expression** and for expression of genes which are regulated by transcription factor MafA, including the insulin gene. In addn., the invention claims diagnostic methods, methods of selecting and **differentiating** insulin-producing cells, and methods of treatment utilizing compn. of the invention. Three conserved insulin enhancer elements, A3, E1, and RIPE3b, are known to be important for regulating .beta.-cell-specific expression of the insulin gene. Transcription factors PDX-1, E2A, and HEB that bind and activate expression of the A3 and E1 enhancer elements have been cloned. A .beta.-cell-specific RIPE3b-binding activity (RIPE3b1) was purified and identified through amino acid sequence anal. as the transcription factor MafA/L-Maf. An intronless open reading frame corresponding to the human MafA gene was cloned and shown to be expressed in insulin-producing cells. Recombinant MafA protein has DNA-binding and transcriptional activation activities.

L4 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:117985 HCAPLUS
DOCUMENT NUMBER: 138:164860
TITLE: Human gene 76032 associated with bone disorders, its cDNA and protein sequence and therapeutic use
INVENTOR(S): Jaiswal, Neelam; Houghton, Adam; Mertz, Lawrence; Ji, Darren; Cook, Jonathan S.; Axelrod, Douglas W.
PATENT ASSIGNEE(S): Gene Logic, Inc., USA; The Procter & Gamble Company
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003012070	A2	20030213	WO 2002-US24764	20020805
WO 2003012070	A3	20030612		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-309495P P 20010803
US 2001-317975P P 20010910

AB The present invention relates to identifying genes that are differentially regulated or expressed in bone deposition disorders. Specifically, a novel gene named 76032 has been identified as being differentially regulated during the maturation of osteoblasts and whose expression can be correlated, for example, with bone deposition disorders such as osteoporosis (including correlation with degrees of severity of the disease). The tissue distribution of gene 76032 mRNA was analyzed by quant. PCR expression anal. of RNA isolated from various tissues. Inhibition of 76032 **gene expression** using siRNA duplex increases osteoblast **differentiation**.

L4 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:4954 HCAPLUS
DOCUMENT NUMBER: 138:50822
TITLE: Methods and cell populations for identifying and validating genomic targets, and for **drug screening**
INVENTOR(S): Ruhl, Michael; Ruediger, Manfred; Field, Loren J.; Abts, Harry; Schiller, Hilmar
PATENT ASSIGNEE(S): Cardion A.-G., Germany
SOURCE: Eur. Pat. Appl., 37 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1271145	A1	20030102	EP 2002-13560	20020619
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
WO 2003001202	A1	20030103	WO 2002-EP6786	20020619
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003108895	A1	20030612	US 2002-174755	20020619

PRIORITY APPLN. INFO.: US 2001-300665P P 20010625
US 2002-379083P P 20020509

AB The present invention provides methods for identifying and/or validating genomic targets using cell populations derived in vitro from **differentiating stem cells**. The target validation methods involve transfecting a multipotent cell, such as a **stem cell**, with a nucleic acid mol. representing a potential or yet invalidated genomic target; **differentiating** the transfected multipotent cell into a specific cell lineage; isolating the specific cell lineage, e.g. from non-**differentiated** cells and/or other **differentiated** cells; and detg. whether expression of the nucleic acid mol. results in a change of phenotype of the specific cell related to the disease/pathol. or physiol. state, wherein induction of such a change represents a validation of the genomic target.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:977971 HCAPLUS
DOCUMENT NUMBER: 138:35756
TITLE: Method for neural **stem cell differentiation** using valproate
INVENTOR(S): Laeng, Pascal; Mallon, Barbara; Pitts, Lee
PATENT ASSIGNEE(S): Psychiatric Genomics, Inc., USA
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102989	A2	20021227	WO 2002-US19313	20020618
WO 2002102989	A3	20030227		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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US 2003013192	A1	20030116	US 2002-175168	20020618

PRIORITY APPLN. INFO.: US 2001-299066P P 20010618
AB The present invention relates to a method for **differentiating** a neural **stem cell** into a neuronal cell such as a neuroblast or neuro in vitro or in vivo. Particularly, the invention provides for a method for neural **stem cell differentiation** by contacting the neural **stem cell** with a valproate compd. or analog thereof. Valproat promoted neuronal **differentiation** of rat neuronal **stem cells.**

L4 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:977970 HCAPLUS
DOCUMENT NUMBER: 138:35755
TITLE: Method for neural **stem cell differentiation** using 5HT-1A agonists
INVENTOR(S): Altar, C. Anthony; Rajan, Prithi
PATENT ASSIGNEE(S): Psychiatric Genomics, Inc., USA
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102988	A2	20021227	WO 2002-US19312	20020618
WO 2002102988	A3	20030227		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003082802 A1 20030501 US 2002-175360 20020618
PRIORITY APPLN. INFO.: US 2001-299152P P 20010618

AB The present invention relates to a method for **differentiating** a neural **stem cell** into a neuronal cell such as a neuroblast or a neuron in vitro or in vivo. Particularly, the invention provides for a method for neural **stem cell differentiation** by contacting the neural **stem cell** with a 5HT1A ligand or agonist. Buspirone induced neuronal **differentiation** of rat neuronal **stem cells**.

L4 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:869178 HCAPLUS
DOCUMENT NUMBER: 137:363026
TITLE: Matrix assays in genomically indexed cells for ascertaining the functional patterns of pharmacologically important compounds
INVENTOR(S): Dunnington, Damien John; Brown, Steven J.; Veerapandian, Pandi
PATENT ASSIGNEE(S): Axiom Biotechnologies, Inc., USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002090927	A2	20021114	WO 2002-US14257	20020502
WO 2002090927	A3	20030626		

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003100997 A1 20030529 US 2002-139068 20020502
PRIORITY APPLN. INFO.: US 2001-288966P P 20010504

AB A method for ascertaining the functional patterns of pharmacol. important compds. by measuring the physiol. effect of a plurality of compds. on a plurality of cells comprises assaying the plurality of compds. to obtain a first set of data detg. the physiol. effect of each compd. on each cell; assaying at least one known pharmaceutically important compd. to obtain a second set of data detg. the physiol. effect of the known pharmaceutically important compd. on each cell; and comparing the first and second sets of data to identify a compd. having similar physiol. effects as the known pharmaceutically important compd. thereby ascertaining its functional patterns.

L4 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:794361 HCAPLUS
DOCUMENT NUMBER: 137:305753
TITLE: Transgenic mice containing PTP36 tyrosine phosphatase gene disruptions and uses in screening drug
INVENTOR(S): Allen, Keith D.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 30 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002152493	A1	20021017	US 2001-5467	20011204
WO 2002045500	A2	20020613	WO 2001-US47566	20011205
WO 2002045500	A3	20030424		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-251796P P 20001206
AB The present invention provides transgenic mice comprising a disruption in a PTP36 tyrosine phosphatase gene and methods for the characterization of PTP36 tyrosine phosphatase gene function. Specifically, the present invention provides transgenic mice comprising mutations in a PTP36 gene. Such transgenic mice are useful as models for disease and for identifying agents that modulate **gene expression** and gene function, and as potential treatments for various disease states and disease conditions.

L4 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:754595 HCAPLUS
DOCUMENT NUMBER: 137:277249
TITLE: Diagnosis of cancer or benign tumor by detecting the aberrant expression of kallikrein gene KLK4
INVENTOR(S): Dong, Ying; Clements, Judith Ann
PATENT ASSIGNEE(S): Queensland University of Technology, Australia
SOURCE: PCT Int. Appl., 126 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002077243	A1	20021003	WO 2002-AU378	20020327

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: AU 2001-4022 A 20010327

AB The present invention discloses aberrant expression products of the KLK4 gene, which segregate with at least one condition selected from a cancer or a benign tumor, including two aberrant splicing products contg. intron 3 or lacking exon 4 encoded fragment. The invention also discloses a method for detecting the presence or diagnosing the risk of said at least one condition by detecting aberrant KLK4 expression The invention also discloses isolated polynucleotides comprising a nucleotide sequence that corresponds or is complementary to at least a portion of an aberrant KLK4 polynucleotide, which correlates with the presence or risk of said at least one condition. Also disclosed are isolated polypeptides comprising an amino acid sequence that corresponds to at least a portion of an aberrant K4 polypeptide, which correlates with the presence or risk of said at least one condition. The invention also extends to variants and derivs. of these mols., to vectors comprising aberrant KLK4 polynucleotides and to host cells contg. such vectors. The invention further extends to antigen-binding mols. that are immuno-interactive with aberrant K4 polypeptides and to the use of these antigen-binding mols., the aberrant KLK4 polynucleotides and aberrant K4 polypeptides in assays and kits for detecting the presence or diagnosing the risk of said at least one condition. The invention further encompasses the use of functional KLK4 polynucleotides or functional K4 polypeptides or agents that modulate the level and/or functional activity of an expression product of KLK4 or of a gene belonging to the same biosynthetic or regulatory pathway as KLK4 for treating and/or preventing one or more of said conditions. The invention examines the expression of KLK4 in the normal ovary and ovarian tumors of different histol., stage, and **differentiation** and dets. its assocn. with ovarian tumor progression. Higher levels of KLK4 expression is detected to be higher in late stage serous (SER) epithelial-derived ovarian carcinomas than in normal ovaries, mucinous epithelial tumors, and granulosa cell tumors by reverse transcription-PCR, Southern blot, and western blot assay. KLK4 is highly expressed in all of the SER ovarian carcinoma cell lines (eight of eight), SER epithelial carcinomas (11 of 11), and 2 adenomas, whereas it was expressed at a lower level (or not at all) in normal ovaries (four of six), mucinous epithelial tumors (three of four), endometrioid carcinomas (four of five), clear cell carcinomas (two of three), or granulosa cell tumors (three of six). Of particular interest, KLK4 mRNA variants are detected in SER ovarian carcinoma cell lines and primary cultured ovarian tumor cells, but they are not present in normal ovaries. In situ hybridization anal. shows that KLK4 mRNA transcripts are localized to adenocarcinoma cells of ovarian tumor tissues. Similarly, immunohistochem. staining of ovarian carcinoma sections shows immunoreactivity to KLK4 protein product (hK4) antipeptide antibodies. In addn., intracellular hK4 levels, as detected on Western blot anal., are induced by 100 nM estrogen treatment of the estrogen receptor pos. ovarian carcinoma cell line OVCAR-3, >8-24 h. These results show that the level of KLK4 expression and expression of KLK4 mRNA variants are assocd. with progression of ovarian cancer, particularly late stage SER adenocarcinomas. Moreover, hK4 can be used as a candidate marker for the diagnosis and/or monitoring of ovarian epithelial carcinomas.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:736396 HCAPLUS
DOCUMENT NUMBER: 137:259634
TITLE: Generation of insulin-secreting .beta.-cell-like cells suitable for transplantation by induction of neurogenin-3 **gene expression**
INVENTOR(S): Serup, Palle; Heimberg, Harry; Gradwohl, Gerard
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002074946	A2	20020926	WO 2002-DK130	20020226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003082810	A1	20030501	US 2002-90011	20020226

PRIORITY APPLN. INFO.: US 2001-271474P P 20010226
AB The invention relates to methods for generating insulin secreting cells from precursor **stem cells** or from adult pancreatic exocrine cells. The methods of the invention are useful, for example, for generation of glucose sensitive insulin-secreting .beta.-cells suitable for transplantation, as well as for in situ development of insulin-secreting cells in a patient in need thereof. Further, the method of the invention relates to methods for preventing premature **differentiation** of precursor **stem cells** into insulin-secreting .beta.-cells. Still further, the invention relates to assay methods for identification of compds. that prevent or activate .beta.-cell **differentiation**.

L4 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:716470 HCAPLUS
DOCUMENT NUMBER: 137:244246
TITLE: Methods for fabrication of microarrays containing polymeric biomaterials for use in high-throughput **drug screening** and **gene expression** profiling
INVENTOR(S): Langer, Robert S.; Anderson, Daniel G.; Putnam, David A.
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2002072812	A2	20020919	WO 2002-US6771	20020306
WO 2002072812	A3	20030508		

W: CA, JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

US 2002142304	A1	20021003	US 2001-803319	20010309

PRIORITY APPLN. INFO.: US 2001-803319 A 20010309

AB A microarray of polymeric biomaterials is provided. Specifically, a microarray of polymeric biomaterials that comprises a base with a cytophobic surface, and a plurality of discrete polymeric biomaterial elements bound to the cytophobic surface, is provided. Preferably said polymeric biomaterials comprise a synthetic polymer. Said polymeric biomaterials may also comprise other compds. covalently or non-covalently attached to said synthetic polymer. Methods of prepg. the microarray of polymeric biomaterials of the present invention and uses of the microarray of polymeric biomaterials of the present invention are also provided. The said polymeric biomaterials may be 10-1000 .mu.m in diam. at placed at 100-1200 .mu.m intervals in a rectangular microarray at a d. of 1-1000 polymeric biomaterials/cm2 and as drops of between 0.1-100 nl.

L4 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:594963 HCAPLUS
DOCUMENT NUMBER: 137:151079
TITLE: Transfection of human **embryonic stem cells** for altering **gene expression**
INVENTOR(S): Benvenisty, Nissim; Yanuka, Ofra; Schuldiner, Maya; Eiges-Avner, Rachel
PATENT ASSIGNEE(S): Yissum Research Development Company, Israel
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002061033	A2	20020808	WO 2001-IB2858	20011127

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002127715	A1	20020912	US 2001-995452	20011127

PRIORITY APPLN. INFO.: US 2000-253222P P 20001127
US 2001-267664P P 20010209

AB Methods are provided for introducing a polynucleotide into a population of human **embryonic stem cells** to change the **gene expression** of the cells while optionally retaining the pluripotent characteristic of the cells. The methods are used to sep. **embryonic stem cells** from a mixed population contg. **differentiated** cells in which the **gene expression** is under an **embryonic stem cell** specific promoter. Methods and cell populations are

described for cell therapy including introducing a suicide gene into pluripotent cells so that when these are placed in a subject, the cells can be destroyed if they become hyperproliferative and knocking out genes assocd. with immune recognition by the host. Methods for following **differentiation** pathways are described using **embryonic stem cells** transfected with a marker. Examples of conditions for treating with a selected cell type includes cancer, immune disorders, autoimmune diseases, diseases of aging, degenerative diseases including neurodegenerative diseases, and conditions assocd. with trauma. In an embodiment of the invention, a method is provided for screening an agent to det. an effect on **differentiation** of cells in vitro, comprising: adding the agent to an in vitro cell culture of a population of genetically engineered **humanembryonic stem cells** expressing a detectable marker under a cell specific promoter; providing the conditions for the **embryonic stem cells** to **differentiate**; and detg. the effect on **differentiation** of the agent. The detectable marker may be a fluorescent marker or an antibiotic resistant marker.

L4 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:539941 HCAPLUS
DOCUMENT NUMBER: 137:91388
TITLE: Use of mouse and Xenopus Daedalos transcription factor in diagnosis and treatment of neural proliferative disorders and cancer
INVENTOR(S): Morgan, Bruce A.
PATENT ASSIGNEE(S): The General Hospital, USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002056027	A2	20020718	WO 2001-US51164	20011025
WO 2002056027	A3	20030515		
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
US 2002177145	A1	20021128	US 2001-37667	20011025
EP 1328816	A2	20030723	EP 2001-989319	20011025
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.: US 2000-243110P P 20001025
WO 2001-US51164 W 20011025

AB The invention provides mouse and Xenopus Daedalos polypeptides, nucleic acids encoding Daedalos polypeptides, and methods of using Daedalos polypeptides and nucleic acids. Also included in the invention are methods of diagnosis, methods of treatment, methods of detection, and methods of controlling neural cell **differentiation** by detecting and/or modulating expression of Daedalos in a cell.

L4 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:449428 HCAPLUS
DOCUMENT NUMBER: 137:28266
TITLE: **Stem cell**-based **drug screening** system
INVENTOR(S): Terada, Naohiro; Hamazaki, Takashi

PATENT ASSIGNEE(S): University of Florida, USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002045506	A1	20020613	WO 2001-US50987	20011026

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002041758	A5	20020618	AU 2002-41758	20011026
US 2002115059	A1	20020822	US 2001-45721	20011026

PRIORITY APPLN. INFO.: US 2000-243549P P 20001026
WO 2001-US50987 W 20011026

AB A method for identifying a drug candidate for promoting tissue-specific **differentiation** of a **stem cell** includes providing a library of test substances and an in vitro culture of **stem cells** divided into at least two subcultures; contacting one of the subcultures with the first test substance from the library and a second subculture with a second test substance from the library; culturing the subcultures under conditions that would promote tissue-specific **differentiation** of the **stem cells** if an agent that promoted tissue-specific **differentiation** was in contact with the **stem cells**; and analyzing the cells in the subcultures for increased tissue specific **gene expression**.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:429082 HCAPLUS
DOCUMENT NUMBER: 137:17032
TITLE: Use of mouse osterix transcription factor for osteoblast **differentiation** and bone formation in treatment of osteoporosis
INVENTOR(S): De Crombrugghe, Benoit; Nakashima, Kazuhisa; Zhou, Xin
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044380	A2	20020606	WO 2001-US44898	20011130
WO 2002044380	A3	20030313		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002156031	A1	20021024	US 2000-734329		20001130
AU 2002027045	A5	20020611	AU 2002-27045		20011130
PRIORITY APPLN. INFO.:			US 2000-734329	A1	20001130
			WO 2001-US44898	W	20011130

AB A novel mouse **gene, expressed** selectively by osteoblast lines, that encodes an osterix transcription factor is provided. Expression of the gene is highly restricted to cells of osteoblast lineage, including precursor cells. Also provided is a method for promoting bone formation by providing agents that bind to the novel gene within osteoblast cells to stimulate bone formation in the treatment of osteoporosis.

L4 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:886458 HCAPLUS
DOCUMENT NUMBER: 136:2525
TITLE: Dopaminergic neuron visualization and isolation, via green fluorescent protein expression and FACS detection, and use in **drug screening**
INVENTOR(S): Okano, Hideyuki; Sawamoto, Kazunobu; Kobayashi, Kazuto; Matsushita, Natsuki
PATENT ASSIGNEE(S): Japan Science and Technology Corporation, Japan
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001092482	A1	20011206	WO 2000-JP8674	20001207
W: CA, US				
JP 2002051775	A2	20020219	JP 2001-111210	20010410
US 2002155423	A1	20021024	US 2002-48536	20020313
PRIORITY APPLN. INFO.:			JP 2000-165150 A	20000601
			WO 2000-JP8674 W	20001207

AB A method for identification and sepn. of dopaminergic neurons, which comprises transferring reporter **gene expressing** a fluorescent protein under the regulation of a promoter/enhancer of a **gene expressed** in dopaminergic neurons, into individual cells of a cell mass and sepg. fluoresce labeled cells from this cell mass, is disclosed. A method of screening dopaminergic neuron inductive factors, which comprises transferring a reporter gene into cells capable of **differentiating** into dopaminergic neurons, allowing these cells to coexist with a candidate substance and then detg. whether or not the candidate substance is a dopaminergic neuron inductive factor using fluorescence cell sorter (FACS), is also claimed. To visualize and isolate live dopamine (DA)-producing neurons in the **embryonic** ventral mesencephalon, we generated transgenic mice expressing green fluorescent protein (GFP) under the control of the rat tyrosine hydroxylase gene promoter. In the transgenic mice, GFP expression was obsd. in the developing DA neurons contg. tyrosine hydroxylase. The outgrowth and cue-dependent guidance of GFP-labeled axons was monitored in

vitro with brain culture systems. To isolate DA neurons expressing GFP from brain tissue, cells with GFP fluorescence were sorted by fluorescence-activated cell sorting. More than 60% of the sorted GFP+ cells were pos. for tyrosine hydroxylase, confirming that the population had been successfully enriched with DA neurons. The sorted GFP+ cells were transplanted into a rat model of Parkinson's disease. Some of these cells survived and innervated the host striatum, resulting in a recovery from Parkinsonian behavioral defects. This strategy for isolating an enriched population of DA neurons should be useful for cellular and mol. studies of these neurons and for clin. applications in the treatment of Parkinson's disease.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:868638 HCAPLUS
DOCUMENT NUMBER: 136:15892
TITLE: Methods for assaying gene imprinting and methylated CpG islands
INVENTOR(S): Feinberg, Andrew; Strichman-aAmashanu, Liora; Jiang, Shan
PATENT ASSIGNEE(S): The Johns Hopkins University, USA
SOURCE: PCT Int. Appl., 125 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090313	A2	20011129	WO 2001-US16253	20010522
WO 2001090313	A3	20020516		
WO 2001090313	C2	20030306		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002045257	A1	20020418	US 2001-861893	20010522
EP 1290139	A2	20030312	EP 2001-941519	20010522
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:
US 2000-206158P P 20000522
US 2000-206161P P 20000522
WO 2001-US16253 W 20010522

AB Genomic imprinting is a parent of origin-dependent gene silencing that involves marking of alleles in the germline and differential expression in somatic cells of the offspring. Imprinted genes and abnormal imprinting have been implicated in development, human disease, and **embryonic stem cell** transplantation. We have established a model system for genomic imprinting using pluripotent 8.5 d.p.c. mouse **embryonic** germ (EG) cell lines derived from an interspecific cross. We find that allele-specific imprinted **gene expression** has been lost in these cells. However, partial restoration of allele-specific silencing can occur for some imprinted

genes after in vitro **differentiation** of EG cells into somatic cell lineages, indicating the presence of a gametic memory that is separable from allele-specific gene silencing. We have also generated a library contg. most methylated CpG islands. A subset of these clones was analyzed and revealed a subdivision of methylated CpG islands into 4 distinct subtypes: CpG islands belonging to high copy no. repeat families; unique CpG islands methylated in all tissues; unique methylated CpG islands that are unmethylated in the paternal germline; and unique CpG islands methylated in tumors. This approach identifies a methylome of methylated CpG islands throughout the genome.

L4 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:636190 HCAPLUS
DOCUMENT NUMBER: 135:207884
TITLE: Presenilin deficient multipotent cell lines and screening methods for intramembrane regulated proteolytic activities using these lines
INVENTOR(S): Annaert, Wim; De Strooper, Bart; Herreman, An; Schoonjans, Luc; Serneels, Lutgarde
PATENT ASSIGNEE(S): Vlaams Interuniversitair Instituut Voor Biotechnologie Vzw, Belg.; De Strooper, Bart
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001062897	A1	20010830	WO 2001-EP2127	20010221
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1257633	A1	20021120	EP 2001-909791	20010221
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003059938	A1	20030327	US 2002-228531	20020826

PRIORITY APPLN. INFO.: EP 2000-200671 A 20000225
WO 2001-EP2127 W 20010221

AB The present invention relates to the field of neurol. and physiol. dysfunctions assocd. with Alzheimer's disease. More particularly to mutant **embryonic** stem (ES) cell lines characterized by no detectable .gamma.-secretase activity, derived from double presenilin (PS 1 and PS 2) knock-out mice **embryos**. These cell lines can be used for in vitro screening of mols. and products involved in regulated intramembrane proteolysis of proteins such as the PP, the APP-like proteins, Notch, Ire-1p, and other integral membrane proteins; to identify proteases responsible for the latter proteolysis, like gamma-secretases, or proteins involved in the control of these proteolytic activities. These mutant ES cell lines can be manipulated to **differentiate** into fibroblast, neurons, myocytes or can be used to generate novel transgenic mice. Moreover, a reporter system comprises a chimeric mol. to detect the above mentioned intramembrane proteolysis or modulators

thereof. Reporter constructs contg. human APP695 (or Swedisch mutant or A.beta.4 fragment) fused with the intracellular domain of mouse Notch1 and to myc tag as well as the **murine** HES-1 promoter linked to the luciferase gene were prepd. and transfected in Hela cells.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:386975 HCAPLUS
DOCUMENT NUMBER: 136:144564
TITLE: Lithium influences **differentiation** and tissue-specific **gene expression** of mouse **embryonic** stem (ES) cells in vitro
AUTHOR(S): Schmidt, Michael M.; Guan, Kaomei; Wobus, Anna M.
CORPORATE SOURCE: Vitro Differentiation Group, IPK Gatersleben, Gatersleben, D-06466, Germany
SOURCE: International Journal of Developmental Biology (2001), 45(2), 421-429
CODEN: IJDBE5; ISSN: 0214-6282
PUBLISHER: University of the Basque Country Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of lithium chloride (LiCl) on **differentiation** of mouse **embryonic** stem (ES) cells were investigated in order to evaluate the ES cell test (EST) used in a European Union validation study for screening of **embryotoxic** agents in vitro. We show that LiCl inhibited concn.-dependently the **differentiation** of ES cells into cardiac and myogenic cells. Whereas the inhibition of cardiac **differentiation** by high concns. of LiCl was obvious at day 5 + 5, decreased skeletal muscle cell **differentiation** was obsd. only at day 5 + 8. Semi-quant. RT-PCR analyses revealed significantly lower levels of mRNA encoding cardiac-specific .alpha.-myosin heavy chain and skeletal muscle-specific myoD. By morphol. investigation, an influence of lithium on neuronal **differentiation** was not evident. However, mRNA levels of genes encoding synaptophysin and the 160 kDa neurofilament protein were increased by high LiCl concns., whereas mRNA levels of mash-1 and Engrailed-1 were decreased, suggesting a specific influence of lithium on neuronal **differentiation**. Furthermore, LiCl treatment resulted in a slight, but non-significant increase of .beta.-catenin levels in ES cell-derived **embryoid** bodies. Our results demonstrate that the ES cell test, EST may be suitable to detect inhibitory effects of test compds. esp. on cardiac **differentiation** , whereas effects on neuronal cells would not be detected. Therefore, we propose that morphol. analyses of cardiac **differentiation** alone are insufficient to detect **embryotoxic** effects. The assay of other cell lineages at different developmental stages, and expression analyses of tissue-specific genes should also be employed.
REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:380731 HCAPLUS
DOCUMENT NUMBER: 134:363669
TITLE: Cell culture system for culture of stromal and hemopoietic **stem cells** to make immune cells and uses including as human ex vivo immune system
INVENTOR(S): Wu, J. H. David; Mantalaris, Athanassios
PATENT ASSIGNEE(S): University of Rochester, USA
SOURCE: PCT Int. Appl., 75 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001036589	A2	20010525	WO 2000-US31747	20001117
WO 2001036589	A3	20020214		
WO 2001036589	C2	20020704		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001017780	A5	20010530	AU 2001-17780	20001117
EP 1231836	A2	20020821	EP 2000-980527	20001117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2003109042	A1	20030612	US 2002-244653	20020916

PRIORITY APPLN. INFO.: US 1999-166026P P 19991117
US 2000-715852 B1 20001117
WO 2000-US31747 W 20001117

AB The present invention provides cultured immune **system cells** and methods of producing same. The method comprises culturing stromal cells and hemopoietic **stem cells** in a chamber having a scaffolding covered or surrounded with culture medium, wherein the scaffolding allows for hemopoietic **stem cells** and stromal cells to have cell to cell contacts in three dimensions. The subject immune **system cells** are useful for screening drugs which inhibit or stimulate the immune system. The subject immune **system cells** are also useful in treating diseases of the immune system.

L4 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:380644 HCAPLUS
DOCUMENT NUMBER: 134:362238
TITLE: Transgenic mammal expressing fluorescent protein gene in multipotent stem and progenitor cells
INVENTOR(S): Enikolopov, Grigori N.; Mignone, John
PATENT ASSIGNEE(S): Cold Spring Harbor Laboratory, USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001036482	A1	20010525	WO 2000-US31150	20001114
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,				

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1235857	A1	20020904	EP 2000-978585	20001114
JP 2003514550	T2	20030422	JP 2001-538971	20001114
US 2002178460	A1	20021128	US 2002-150509	20020516

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 1999-444335 A2 19991119
WO 2000-US31150 W 20001114

AB Non-human transgenic mammals are produced which have, incorporated in their genome, DNA which includes a regulatory sequence of a mammalian nestin gene, operably linked to a gene coding for a marker/reporter protein. The regulatory sequence can include a promoter and a sequence present in the second intron of the mammalian nestin gene. Preferably, the marker/reporter protein is a fluorescent protein, for example a green fluorescent protein, modified for enhanced fluorescence. Multipotent and, in particular, neural stem and progenitor cell populations are obsd. in the organs of the non-transgenic mammal or progeny thereof. Multipotent stem and progenitor cells are isolated directly from the non-human transgenic mammal, progeny or **embryo** thereof, for example by FACS, without culture passages. The **gene expression** in intact isolated **stem cells** can be studied by versions of gene chip tecnol.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:338761 HCAPLUS
DOCUMENT NUMBER: 134:349020
TITLE: Tissue-specific genes of diagnostic import
INVENTOR(S): Sornasse, Thierry; Seilhamer, Jeffrey J.; Watson, George A.
PATENT ASSIGNEE(S): Incyte Genomics, Inc., USA
SOURCE: PCT Int. Appl., 328 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032927	A2	20010510	WO 2000-US30396	20001102

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1255859	A2	20021113	EP 2000-976921	20001102

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 1999-163508P P 19991104
WO 2000-US30396 W 20001102

AB The present invention relates to a compn. comprising a plurality of polynucleotides which are cell- and/or tissue-specific and which may be used in their entirety or in part as refs. in producing an expression profile that defines a metabolic or developmental process, treatment, condition, disease, or disorder. Thus, 208 cDNA fragments (and extended sequences) are provided which are specifically expressed in human heart muscle, uterus, ovary, stomach, intestine, lung, liver, kidney, pancreas, and brain tissues. This ref. set may be used in its entirety or in part in arrays to produce expression profiles.

L4 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:314809 HCAPLUS
DOCUMENT NUMBER: 132:343279
TITLE: Tissue-specific promoters and transgenic animals for the screening of pharmaceuticals
INVENTOR(S): Eckert, Richard L.; Crish, James F.
PATENT ASSIGNEE(S): Case Western Reserve University, USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000026343	A2	20000511	WO 1999-US25516	19991029
W: AU, CA, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6313373	B1	20011106	US 1999-430201	19991029

PRIORITY APPLN. INFO.: US 1998-106495P P 19981030
AB The present invention pertains to the identification and characterization of a nucleic acid sequence of the human involucrin gene which targets expression of any desired nucleic acid sequence to specific tissues and specific cells. In particular, this invention relates to nucleic acid sequences which target expression of nucleic acid sequence to suprabasal cells in stratifying squamous epithelial tissue ant to uroepithelial cells. In another aspect, this invention pertains to transgenic animals which exhibit certain cancers and hyperplasias. The invention also pertains to methods of screening for therapeutics for epithelial neoplasia.

L4 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:659576 HCAPLUS
DOCUMENT NUMBER: 131:267027
TITLE: Method of identifying agents that block muscle atrophy
INVENTOR(S): Yancopoulos, George D.
PATENT ASSIGNEE(S): Regeneron Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9951983	A1	19991014	WO 1999-US7538	19990406
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,				

DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9934741 A1 19991025 AU 1999-34741 19990406
PRIORITY APPLN. INFO.: US 1998-56459 19980407
WO 1999-US7538 19990406

AB A method is provided for identifying agents, genes, and gene products that reduce proteolysis in muscle cells under conditions that induce atrophy. The methodol. of the invention includes subjecting lacZ **gene-expressing** muscle cells to atrophy-inducing conditions and a test agent and measuring .beta.-galactosidase prodn.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d ibib abs 16 1-10

=> d que stat 16
L1          3996 SEA FILE=HCAPLUS ABB=ON  (?DRUG?(W)?SCREEN?) AND (?GENE?(W)?EXP
                 RESS?)
L2           188 SEA FILE=HCAPLUS ABB=ON  L1 AND ?DIFFERENTIAT?
L3            51 SEA FILE=HCAPLUS ABB=ON  L2 AND (?STEM?(W)?CELL? OR ?MURINE?)
L4            25 SEA FILE=HCAPLUS ABB=ON  L3 AND ?EMBRYO?
L5            10 SEA L4
L6            10 DUP REMOV L5 (0 DUPLICATES REMOVED)

L6   ANSWER 1 OF 10  EMBASE  COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER:   2003161776  EMBASE
TITLE:              Ascorbic acid enhances differentiation of
                    embryonic stem cells into
                    cardiac myocytes.
AUTHOR:             Takahashi T.; Lord B.; Schulze P.C.; Fryer R.M.; Sarang
                    S.S.; Gullans S.R.; Lee R.T.
CORPORATE SOURCE:   Dr. R.T. Lee, Partners Research Facility, 65 Landsdowne St,
                    Cambridge, MA 02139, United States.
                    rlee@rics.bwh.harvard.edu
SOURCE:             Circulation, (15 Apr 2003) 107/14 (1912-1916).
                    Refs: 13
                    ISSN: 0009-7322  CODEN: CIRCAZ
COUNTRY:            United States
DOCUMENT TYPE:      Journal; Article
FILE SEGMENT:       002     Physiology
                    018     Cardiovascular Diseases and Cardiovascular Surgery
                    029     Clinical Biochemistry
                    037     Drug Literature Index
LANGUAGE:           English
SUMMARY LANGUAGE:   English
AB   Background - Embryonic stem (ES) cells are capable of
     self-renewal and differentiation into cellular derivatives of
     all 3 germ layers. In appropriate culture conditions, ES cells can
     differentiate into specialized cells, including cardiac myocytes,
     but the efficiency is typically low and the process is incompletely
     understood. Methods and Results - We evaluated a chemical library for its
     potential to induce cardiac differentiation of ES cells in the
     absence of embryoid body formation. Using ES cells stably
     transfected with cardiac-specific .alpha.-cardiac myosin heavy chain (MHC)
     promoter-driven enhanced green fluorescent protein (EGFP), 880 compounds
     approved for human use were screened for their ability to induce cardiac
     differentiation. Treatment with ascorbic acid, also known as
     vitamin C, markedly increased the number of EGFP-positive cells, which
     displayed spontaneous and rhythmic contractile activity and stained
     positively for sarcomeric myosin and .alpha.-actinin. Furthermore,
     ascorbic acid induced the expression of cardiac genes, including GATA4,
     .alpha.-MHC, and .beta.-MHC in untransfected ES cells in a developmentally
     controlled manner. This effect of ascorbic acid on cardiac
     differentiation was not mimicked by the other antioxidants such as
     N-acetylcysteine, Tiron, or vitamin E. Conclusions - Ascorbic acid induces
     cardiac differentiation in ES cells. This study demonstrates the
     potential for chemically modifying the cardiac differentiation
     program of ES cells.

L6   ANSWER 2 OF 10  EMBASE  COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER:   2003114768  EMBASE
TITLE:              Pharmacological potential of embryonic
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stem cells.
AUTHOR: Gorba T.; Allsopp T.E.
CORPORATE SOURCE: T.E. Allsopp, Stem Cell Sciences Ltd., Kings Buildings, University of Edinburgh, Edinburgh EH9 3JQ, United Kingdom. timallsopp@stemcellsciences.uk.com
SOURCE: Pharmacological Research, (1 Apr 2003) 47/4 (269-278). Refs: 99
ISSN: 1043-6618 CODEN: PHMREP
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 008 Neurology and Neurosurgery
026 Immunology, Serology and Transplantation
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Established **embryonic** stem (ES) cell lines have been at the forefront of approaches to understand gene function during **embryogenesis** and in adult vertebrate organisms, principally due to exploitation of two essential attributes; their pluripotency or ability to contribute to all three germinal layers and germ line in mice and their ease of genetic modification. Endeavours to routinely establish ES cells from species other than mice have met with limited success, although with rapid progress being made in our understanding of their basic cell biology, the regular derivation of lines from pre-implantation **embryos** will become easier for many species including humans. With a recent growing awareness of how these cells can be made to grow in an unlimited, but regulated manner plus how their fate can be directed or manipulated into diverse, mature phenotypes in culture, it has become clear that the biological resource offers additional attractive features applicable for future biomedical research and therapy. Advanced mouse ES-based technologies are being used in the industry for pharmaceutical discovery and development, while it is also anticipated that human ES cell reagents will revolutionise aspects of regenerative medicine. This review will summarise the advantages, potential and great hope for ES cell based systems in these contexts. .COPYRGT. 2003 Elsevier Science Ltd. All rights reserved.

L6 ANSWER 3 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2003:354912 BIOSIS
DOCUMENT NUMBER: PREV200300354912
TITLE: **Gene expression** in human neural **stem cells**: Effects of leukemia inhibitory factor.
AUTHOR(S): Wright, Lynda S.; Li, Jiang; Caldwell, Maeve A.; Wallace, Kyle; Johnson, Jeffrey A.; Svendsen, Clive N. (1)
CORPORATE SOURCE: (1) Waisman Center Stem Cell Research Program, Waisman Center and Departments of Anatomy and Neurology, University of Wisconsin, Madison, WI, 53705-2280, USA: svendsen@waisman.wisc.edu USA
SOURCE: Journal of Neurochemistry, (July 2003, 2003) Vol. 86, No. 1, pp. 179-195. print.
ISSN: 0022-3042.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Human neural precursor cells grown in culture provide a source of tissue for **drug screening**, developmental studies and cell therapy. However, mechanisms underlying their growth and **differentiation** are poorly understood. We show that epidermal growth factor (EGF) responsive precursors derived from the developing

human cortex undergo senescence after 30-40 population doublings. Leukemia inhibitory factor (LIF) increased overall expansion rates, prevented senescence and allowed the growth of a long-term self renewing neural **stem cell** (ltNSCctx) for up to 110 population doublings. We established basal **gene expression** in ltNSCctx using Affymetrix oligonucleotide microarrays that delineated specific members of important growth factor and signaling families consistently expressed across three separate lines. Following LIF withdrawal, 200 genes showed significant decreases. Protein analysis confirmed LIF-regulated expression of glial fibrillary acidic protein, CD44, and major histocompatibility complex I. This study provides the first molecular profile of human ltNSCctx cultures capable of long-term self renewal, and reveals specific sets of genes that are directly or indirectly regulated by LIF.

L6 ANSWER 4 OF 10 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-129429 [12] WPIDS
CROSS REFERENCE: 2003-029900 [02]; 2003-140218 [13]; 2003-167512 [16]; 2003-175238 [17]; 2003-229407 [22]; 2003-430516 [40]
DOC. NO. CPI: C2003-033198
TITLE: Novel human secreted proteins, useful for detecting, preventing, diagnosing, prognosticating, treating and/or ameliorating cardiovascular disorders such as arrhythmia.
DERWENT CLASS: B04 D16
INVENTOR(S): ROSEN, C A; RUBEN, S M
PATENT ASSIGNEE(S): (HUMA-N) HUMAN GENOME SCI INC
COUNTRY COUNT: 96
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002095010	A2	20021128	(200312)*	EN	

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002095010	A2	WO 2002-US9785	20020319

PRIORITY APPLN. INFO: US 2001-331287P 20011113; US 2001-277340P 20010321; US 2001-306171P 20010719
AN 2003-129429 [12] WPIDS
CR 2003-029900 [02]; 2003-140218 [13]; 2003-167512 [16]; 2003-175238 [17]; 2003-229407 [22]; 2003-430516 [40]
AB WO 200295010 A UPAB: 20030624
NOVELTY - Human secreted proteins (I), are new.
DETAILED DESCRIPTION - Human secreted proteins (I), are new.
(I) is selected from a polypeptide comprising a sequence at least 95% identical to a sequence selected from:
(a) a full length polypeptide selected from one of the 100 or more polypeptide sequences (P1) defined in the specification or a full-length polypeptide (P2) encoded by the cDNA Clone ID in ATCC Deposit Number described in the specification;
(b) a predicted secreted form of a polypeptide selected from P1 or a

secreted form of P2;

(c) a fragment of a polypeptide selected from P1 or a secreted form of P2, where the fragment has biological activity;

(d) a polypeptide domain or predicted epitope of a polypeptide selected from P1.

INDEPENDENT CLAIMS are also included for the following:

(1) an antibody (II) or its fragment that binds (I) or a polypeptide comprising (P1);

(2) a nucleic acid molecule (III) comprising a sequence at least 95% identical to a sequence selected from:

(a) a polynucleotide fragment selected from one of the 100 or more polynucleotide sequences (N1) defined in the specification;

(b) a polynucleotide encoding a full-length polypeptide selected from P1 or P2;

(c) a polynucleotide encoding a predicted secreted form of P1 or P2;

(d) a polynucleotide encoding a polypeptide fragment of P1 or P2, where the fragment has biological activity;

(e) a polynucleotide encoding a polypeptide domain or epitope of P1;

(3) a recombinant vector (IV) comprising (III);

(4) a host cell (V) comprising (IV); and

(5) use of an agonist or antagonist that binds to (I) for the preparation of a pharmaceutical composition for treating a cardiovascular disorder.

ACTIVITY - Cardiant; Antiarrhythmic; Antiarteriosclerotic; Vasotropic; Cytostatic; Vulnerary; Antiinflammatory; Nootropic; Neuroprotective; Antiparkinsonian.

No supporting biological data is given.

MECHANISM OF ACTION - Gene therapy; agonist or antagonist of (I); Stimulator of growth and **differentiation** of hematopoietic cells and bone marrow cells when used in combination with other cytokines; Modulator of mammalian characteristics or metabolism.

No supporting biological data is given.

USE - (I), (II) or (III) is useful for the preparation of a diagnostic or pharmaceutical composition for diagnosing or treating a cardiovascular disorder. (I) is useful for identifying a binding partner by contacting (I) with a binding partner and determining whether the binding partner increases or decreases activity of (I) (claimed).

(I), (II) or (III) is useful for detecting, preventing, diagnosing, prognosticating, treating and/or ameliorating cardiovascular disorders (e.g., arrhythmia, tachycardia, cardiac arrest, coronary arteriosclerosis, myocardial ischemia), or for treating neural disorders, immune system disorders, muscular disorders, reproductive disorders, gastrointestinal disorders, pulmonary disorders, renal disorders, proliferative disorders and/or cancerous diseases and conditions, for wound healing and epithelial cell proliferation, to treat inflammation or infection, for treating thrombosis and arteriosclerosis, for treating or preventing neural damage which occurs in neuronal disorders or neurodegenerative conditions such as Alzheimer's disease and Parkinson's disease, to enhance bone and periodontal regeneration and aid in tissue transplants or bone grafts, to prevent skin aging or hair loss, to stimulate growth and **differentiation** of hematopoietic cells and bone marrow cells when used in combination with other cytokines, to maintain organs before transplantation or for supporting cell culture of primary tissues, to increase or decrease **differentiation** or proliferation of **embryonic stem cells**, or to modulate mammalian characteristics or metabolism.

(I) is useful for generating fusion proteins, for specific destruction of cells such as tumor cells, as molecular weight markers on sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE) gels or on molecular sieve gel filtration columns, to raise antibodies, to test

biological activities, to screen for molecules that bind to (I) or for molecules to which (I) binds, or in **drug screening**.
(I) or (II) is useful as immunological probes for differential identification of tissue(s) or cell type(s), for in situ detection of gene products or conserved variants or peptide fragment. (II) is useful as an agonist or antagonist of (I), to purify, detect and target (I), in in vitro and in vivo diagnostic and therapeutic methods, for immunophenotyping of cell lines and biological samples, to assay levels of (I) in a biological sample.

(III) is useful for chromosomal identification, for radiation hybrid mapping, to control **gene expression** through triple helix formation or through antisense DNA or RNA, in gene therapy, for identifying individuals from minute biological samples, as an alternative to restriction fragment length polymorphism (RFLP), as hybridization probes for differential identification of the tissue(s) or cell type(s) present in a biological sample, as molecular weight markers on Southern gels, as diagnostic probes for the presence of a specific mRNA in a particular cell type, as a probe to subtract-out known sequences in the process of discovering novel polynucleotides, for selecting and making oligomers for attachment to a gene chip or other support, to raise anti-DNA antibodies using DNA immunization techniques, and as an antigen to elicit an immune response.
Dwg.0/0

L6 ANSWER 5 OF 10 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 2003-075628 [07] WPIDS
DOC. NO. CPI: C2003-019666
TITLE: Producing neural cells expressing tyrosine hydroxylase for neurotransplantation into host to treat neurodegenerative disease, by expanding and plating neural progenitor cells in defined culture medium.
DERWENT CLASS: B04 B05 D16
INVENTOR(S): GRONBORG, M; MEIJER, X; WAHLBERG, L
PATENT ASSIGNEE(S): (NSGE-N) NSGENE AS
COUNTRY COUNT: 100
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002086106	A1	20021031	(200307)*	EN	44

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002086106	A1	WO 2002-DK262	20020423

PRIORITY APPLN. INFO: US 2001-289933P 20010509; US 2001-286084P 20010423
AN 2003-075628 [07] WPIDS
AB WO 200286106 A UPAB: 20030206
NOVELTY - Producing a population of neural cells expressing tyrosine

hydroxylase (TH), involves expanding a population of neural progenitor cells (NPC), plating on a substrate (II) and introducing it into a defined culture medium (III) having growth factor(s) (IV), a molecule (V) that increases intracellular cyclic AMP (cAMP) and an agent (VI) that stimulates protein kinase C (PKC).

DETAILED DESCRIPTION - Producing a population of neural cells in vitro where a percentage of the cells express tyrosine hydroxylase (TH), involves expanding a population of neural progenitor cells (NPC), plating the population on a substrate (II) and introducing it into a defined culture medium (III) having growth factor(s) (IV) of fibroblast growth factor (FGF), molecule (V) that increases intracellular cyclic AMP (cAMP) and agent (VI) that stimulates protein kinase C (PKC).

INDEPENDENT CLAIMS are also included for the following:

(1) a composition (I) produced by the above method;

(2) reseeding (I) by trypsinization and seeding of the TH expressing cells; and

(3) a defined culture medium described as above.

ACTIVITY - Antiparkinsonian; Cerebroprotective; Vulnerary; Tranquilizer.

MECHANISM OF ACTION - Cell therapy.

No biological data is given.

USE - (I) Is useful for treating a mammal with a tyrosine hydroxylase-related deficiency or a disease of the central nervous system (CNS) (e.g. neurodegenerative disease, neurological trauma, stroke and loss of neural cells), especially Parkinson's disease. (I) Is also useful for **drug screening, gene expression** analysis, for investigating a biochemistry and molecular mechanisms of NPC **differentiation**, for identifying compounds or genes involved in the induction of progenitor cell **differentiation**, and for the manufacture of a pharmaceutical for treating CNS diseases. (I) Is further useful for producing antibodies against TH expressing cells, which are useful for screening, identification, isolation and/or cell sorting of biological samples for TH expressing cells (claimed).

ADVANTAGE - The method efficiently generates large numbers of TH expressing neural cells.

Dwg.0/7

L6 ANSWER 6 OF 10 MEDLINE on STN

ACCESSION NUMBER: 2002430381 MEDLINE
DOCUMENT NUMBER: 22174651 PubMed ID: 12186951
TITLE: Normal timing of oligodendrocyte development from genetically engineered, lineage-selectable mouse ES cells.
AUTHOR: Billon Nathalie; Jolicoeur Christine; Ying Qi Long; Smith Austin; Raff Martin
CORPORATE SOURCE: MRC Laboratory for Molecular Cell Biology and Cell Biology Unit and the Biology Department, University College London, London WC1E 6BT, UK.. n.billion@ucl.ac.uk
SOURCE: JOURNAL OF CELL SCIENCE, (2002 Sep 15) 115 (Pt 18) 3657-65. Journal code: 0052457. ISSN: 0021-9533.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200303
ENTRY DATE: Entered STN: 20020821
Last Updated on STN: 20030313
Entered Medline: 20030312

AB Oligodendrocytes are post-mitotic cells that myelinate axons in the vertebrate central nervous system (CNS). They develop from proliferating oligodendrocyte precursor cells (OPCs), which arise in germinal zones,

migrate throughout the developing white matter and divide a limited number of times before they terminally **differentiate.** Thus far, it has been possible to purify OPCs only from the rat optic nerve, but the purified cells cannot be obtained in large enough numbers for conventional biochemical analyses. Moreover, the CNS **stem cells** that give rise to OPCs have not been purified, limiting one's ability to study the earliest stages of commitment to the oligodendrocyte lineage. Pluripotent, mouse **embryonic** stem (ES) cells can be propagated indefinitely in culture and induced to **differentiate** into various cell types. We have genetically engineered ES cells both to positively select neuroepithelial **stem cells** and to eliminate **undifferentiated** ES cells. We have then used combinations of known signal molecules to promote the development of OPCs from selected, ES-cell-derived, neuroepithelial cells. We show that the earliest stages of oligodendrocyte development follow an ordered sequence that is remarkably similar to that observed in vivo, suggesting that the ES-cell-derived neuroepithelial cells follow a normal developmental pathway to produce oligodendrocytes. These engineered ES cells thus provide a powerful system to study both the mechanisms that direct CNS **stem cells** down the oligodendrocyte pathway and those that influence subsequent oligodendrocyte **differentiation.** This strategy may also be useful for producing human cells for therapy and **drug screening.**

L6 ANSWER 7 OF 10 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 2002427442 EMBASE
TITLE: Derivation and potential applications of human **embryonic stem cells.**
AUTHOR: Gepstein L.
CORPORATE SOURCE: Dr. L. Gepstein, Cardiovascular Research Laboratory, Bruce Rappaport Faculty of Medicine, Technion, 2 Efron St., 31096 Haifa, Israel. mdlior@tx.technion.ac.il
SOURCE: Circulation Research, (15 Nov 2002) 91/10 (866-876). Refs: 103
ISSN: 0009-7330 CODEN: CIRUAL
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
021 Developmental Biology and Teratology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB **Embryonic stem cells** are pluripotent cell lines that are derived from the blastocyst-stage early mammalian **embryo.** These unique cells are characterized by their capacity for prolonged **undifferentiated** proliferation in culture while maintaining the potential to **differentiate** into derivatives of all three germ layers. During in vitro **differentiation, embryonic stem cells** can develop into specialized somatic cells, including cardiomyocytes, and have been shown to recapitulate many processes of early **embryonic** development. The present review describes the derivation and unique properties of the recently described human **embryonic stem cells** as well as the properties of cardiomyocytes derived using this unique **differentiating** system. The possible applications of this system in several cardiac research areas, including developmental biology, functional genomics, pharmacological testing, cell therapy, and tissue engineering, are discussed. Because of their combined ability to proliferate indefinitely and to **differentiate** to mature tissue types, human **embryonic stem cells** can potentially provide an unlimited supply of cardiomyocytes for cell therapy

procedures aiming to regenerate functional myocardium. However, many obstacles must still be overcome on the way to successful clinical utilization of these cells.

L6 ANSWER 8 OF 10 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-483233 [52] WPIDS
CROSS REFERENCE: 2001-442253 [47]; 2001-442255 [47]; 2001-451890 [48]; 2001-451908 [48]; 2001-451909 [48]; 2001-451912 [48]; 2001-451938 [48]; 2001-451939 [48]; 2001-457603 [49]; 2001-457740 [49]; 2001-465363 [50]; 2001-465571 [50]; 2001-465578 [50]; 2001-465705 [50]; 2001-476114 [51]; 2001-476164 [51]; 2001-476197 [51]; 2001-476198 [51]; 2001-476199 [51]; 2001-476282 [51]; 2001-476283 [51]; 2001-483140 [52]; 2001-488707 [53]; 2001-488788 [53]; 2001-488875 [53]; 2001-488895 [53]; 2001-496929 [54]; 2001-496930 [54]; 2001-496931 [54]; 2001-496932 [54]; 2001-514838 [56]; 2001-522358 [57]; 2001-565565 [63]; 2001-582152 [65]; 2001-582153 [65]; 2001-589862 [66]; 2001-589934 [66]; 2001-607699 [69]; 2001-611724 [70]; 2001-611725 [70]; 2001-626375 [72]; 2001-626426 [72]; 2001-626432 [72]; 2001-626527 [72]; 2001-639362 [73]; 2002-010428 [01]; 2002-025688 [03]; 2002-062370 [08]; 2002-280918 [32]; 2002-575369 [61]; 2002-590824 [63]; 2002-674924 [72]; 2003-018710 [01]; 2003-028924 [02]; 2003-110596 [10]; 2003-174164 [17]
DOC. NO. CPI: C2001-144924
TITLE: Isolated human growth regulatory-like polypeptide useful for treating e.g. Alzheimer's disease, cancer, autoimmune disorders, hyperproliferative disorders, coagulation disorders, and nervous system disorders.
DERWENT CLASS: B04 D16
INVENTOR(S): ARTERBURN, M C; BOYLE, B J; DRMANAC, R T; FORD, J E; LIU, C; MIZE, N K; TANG, Y T
PATENT ASSIGNEE(S): (HYSE-N) HYSEQ INC
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001055332	A2	20010802	(200152)*	EN	119

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2001032967 A 20010807 (200174)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001055332	A2	WO 2001-US2455	20010125
AU 2001032967	A	AU 2001-32967	20010125

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001032967	A Based on	WO 200155332

PRIORITY APPLN. INFO: US 2000-563786 20000502; US 2000-491404 20000125
AN 2001-483233 [52] WPIDS
CR 2001-442253 [47]; 2001-442255 [47]; 2001-451890 [48]; 2001-451908 [48]; 2001-451909 [48]; 2001-451912 [48]; 2001-451938 [48]; 2001-451939 [48]; 2001-457603 [49]; 2001-457740 [49]; 2001-465363 [50]; 2001-465571 [50]; 2001-465578 [50]; 2001-465705 [50]; 2001-476114 [51]; 2001-476164 [51]; 2001-476197 [51]; 2001-476198 [51]; 2001-476199 [51]; 2001-476282 [51]; 2001-476283 [51]; 2001-483140 [52]; 2001-488707 [53]; 2001-488788 [53]; 2001-488875 [53]; 2001-488895 [53]; 2001-496929 [54]; 2001-496930 [54]; 2001-496931 [54]; 2001-496932 [54]; 2001-514838 [56]; 2001-522358 [57]; 2001-565565 [63]; 2001-582152 [65]; 2001-582153 [65]; 2001-589862 [66]; 2001-589934 [66]; 2001-607699 [69]; 2001-611724 [70]; 2001-611725 [70]; 2001-626375 [72]; 2001-626426 [72]; 2001-626432 [72]; 2001-626527 [72]; 2001-639362 [73]; 2002-010428 [01]; 2002-025688 [03]; 2002-062370 [08]; 2002-280918 [32]; 2002-575369 [61]; 2002-590824 [63]; 2002-674924 [72]; 2003-018710 [01]; 2003-028924 [02]; 2003-110596 [10]; 2003-174164 [17]
AB WO 200155332 A UPAB: 20030612

NOVELTY - An isolated human growth regulatory-like polypeptide (I) comprising a sequence (S) of 128 or 105 amino acids fully defined in the specification, or the mature protein portion or active domain of (I), is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated polynucleotide (II) with human growth regulatory protein precursor-like polypeptide activity comprising a sequence of 891 or 1201 base pairs fully defined in the specification, or its mature protein portion or active domain;

(2) an isolated polynucleotide (III) encoding a polypeptide with biological activity, where (III) hybridizes to the complement of (II) under stringent hybridization conditions;

(3) an isolated polynucleotide (IV) encoding a polypeptide with biological activity, where (IV) has greater than about 90% sequence identity with (I);

(4) an isolated polynucleotide (V) which comprises the complement of (II);

(5) a vector (VI) comprising (II);

(6) a host cell (VII) genetically engineered to express (II) or to contain (II) in operative association with a regulatory sequence that controls expression of (II) in the host cell;

(7) a composition (VIII) comprising (I);

(8) an antibody (IX) directed against (I);

(9) detection (M1) of (II) in a sample involves:

(a) contacting the sample with a compound that binds to and forms a complex with (II) for a period sufficient to form the complex and detecting the complex, so that if a complex is detected, (II) is detected; or

(b) contacting the sample under stringent hybridization conditions with nucleic acid primers that anneal to (II) under such conditions, amplifying a product comprising at least portion of (II), and detecting the product and thus (II) in the sample;

(10) detection (M2) of (I) in a sample involves contacting the sample with a compound that binds to and forms a complex with (I) under conditions and for a period sufficient to form the complex, and detecting formation of a complex, so that if a complex formation is detected, (I) is detected;

(11) identifying (M3) a compound that binds to (I) involves contacting the compound with (I) under conditions and for a time sufficient to form a polypeptide/compound complex and detecting the

complex, so that if the polypeptide/compound complex is detected, a compound that binds to (I), is detected;

(12) production of (I);

(13) a kit (X) comprising (I);

(14) a nucleic acid array (XI) comprising (II) or a unique segment of (II) attached to a surface;

(15) a polypeptide (XII) having growth regulator protein activity comprising at least 10 consecutive amino acids of (S); and

(16) a polynucleotide (XIII) encoding (XII).

ACTIVITY - Antianemic; nootropic; neuroprotective; antiparkinsonian; cytostatic; vulnerary; antirheumatic; contraceptive; anticonvulsant; dermatological; immunosuppressive; antiinflammatory; antiulcer; antipsoriatic; cytostatic.

MECHANISM OF ACTION - Gene therapy.

No supporting data given.

USE - (VIII) Is useful for treating a mammalian subject (claimed).

(I) and/or (II) are useful for the prevention and/or treatment of disorders involving aberrant protein expression or biological activity, and as nutritional sources or supplements.

(I) Is useful for treating neurological disorders, and diseases caused by or involving cartilage development and maintenance, inhibition of melanoma cell growth and tumors, including neuroectodermal tumors such as gliomas, re-engineering damaged or diseased tissues, transplantation, manufacture of bio-pharmaceuticals, development of bio-sensors, for treating anemia, tendonitis, carpal tunnel syndrome, and diseases of the peripheral nervous system such as Alzheimer's disease, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis, and Shy-Drager syndrome.

(I) Is useful for promoting better or faster closure of non-healing wounds, including ulcers, for gut protection or regeneration or treatment of lung or liver fibrosis, for treating infectious diseases, autoimmune disorders such as multiple sclerosis, lupus, rheumatoid arthritis, as a contraceptive, for treating various coagulation disorders, for dissolving or inhibiting formation of thrombosis, for treating cancer, inflammatory conditions, nervous system disorders, and hyperproliferative disorders such as psoriasis.

(I) Is also useful for inhibiting the growth, infection or function of or killing, infectious agents, effecting bodily characteristics, effecting biorhythms or circadian cycles or rhythms, effecting the metabolism, catabolism, anabolism, processing, utilization, storage or elimination of dietary fat, lipid, protein, carbohydrate, vitamins, minerals, co-factors, or other nutritional factors or components, effecting behavioral characteristics, providing analgesic effects or other pain reducing effect, promoting **differentiation** and growth of **embryonic stem cells** in lineages other than hematopoietic lineages, and as an antigen in a vaccine composition.

(I) Is useful in a variety of conventional procedures and methods that are currently applied to other proteins, such as to generate antibodies, and as molecular weight markers and food supplement. (I) is useful in assays to determine biological activity, in **drug screening** assays to raise antibodies or to elicit another immune response, as a reagent in assays designed to quantitatively determine the levels of (I) in biological fluids, as markers for tissues in which the corresponding polypeptide is preferentially expressed, to isolate correlative receptors or ligands, and in medical imaging of sites expressing (I).

(II) Is useful as hybridization probes, oligomers, primers, for chromosome and gene mapping, in the recombinant production of protein, in generation of anti-sense DNA or RNA, in diagnostics as expressed sequence tags for identifying expressed genes, and for inducing immune response.

(II) Is useful for expressing recombinant protein for analysis, characterization or therapeutic use, as markers for tissues in which the corresponding protein is preferentially expressed, as molecular weight markers on gels, as chromosome markers or tags, to identify chromosomes or to map related gene positions, to compare with endogenous DNA sequences in patients to identify potential genetic disorders, as a source of information to derive polymerase chain reaction (PCR) primers for genetic fingerprinting, and for selecting and making oligomers for attachment to a gene chip or other support, including for examination of expression patterns.
Dwg.0/2

L6 ANSWER 9 OF 10 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
ACCESSION NUMBER: 2001263117 EMBASE
TITLE: **Embryonic stem cell**-derived neurogenesis: Retinoic acid induction and lineage selection of neuronal cells.
AUTHOR: Guan K.; Chang H.; Rolletschek A.; Wobus A.M.
CORPORATE SOURCE: A.M. Wobus, In Vitro Differentiation Group, Inst. Plant Genet./Crop Plant Res., IPK, Corrensstr. 3, 06466 Gatersleben, Germany. wobusam@ipk-gatersleben.de
SOURCE: Cell and Tissue Research, (2001) 305/2 (171-176).
Refs: 57
ISSN: 0302-766X CODEN: CTSRCS
COUNTRY: Germany
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 008 Neurology and Neurosurgery
021 Developmental Biology and Teratology
LANGUAGE: English
SUMMARY LANGUAGE: English
AB **Embryonic** stem (ES) cells are able to **differentiate** in vitro into endodermal, mesodermal, and ectodermal cell types. However, the spontaneous development of neuronal cells from ES cells is rather limited. Therefore, specific protocols to increase the **differentiation** of neuronal cells have been established, such as retinoic acid (RA) induction and lineage selection of neuronal cells. High concentrations of RA resulted in efficient neuronal **differentiation** paralleled by the expression of tissue-specific genes, proteins, ion channels, and receptors in a developmentally controlled manner. Because the developmental pattern and survival capacity of RA-induced neuronal cells were limited, specific **differentiation** protocols by lineage selection of neuronal cells have been established using growth and extracellular matrix factors. After formation of cells of the three primary germ layers, mesodermal **differentiation** was inhibited by serum depletion, and neural precursor cells were generated by addition of basic fibroblast growth factor, followed by **differentiation** induction by neuronal **differentiation** factors. Further application of survival-promoting factors such as neurotrophic factors and cytokines at terminal stages resulted in a significant increase, survival, and maintenance of dopaminergic neurons. In the future, these cellular systems will be applicable: (1) for studying commitment and neuronal specification in vitro, (2) as pharmacological assays for **drug screening** , and (3) for the selective isolation of **differentiated** neuronal cells which may be used as a source for cell and tissue grafts.

L6 ANSWER 10 OF 10 MEDLINE on STN
ACCESSION NUMBER: 1999319887 MEDLINE
DOCUMENT NUMBER: 99319887 PubMed ID: 10392716
TITLE: Cell lineage in the developing neural tube.
AUTHOR: Kalyani A J; Rao M S

CORPORATE SOURCE: Department of Neurobiology and Anatomy, University of Utah Medical School, Salt Lake City 84132, USA.
SOURCE: BIOCHEMISTRY AND CELL BIOLOGY, (1998) 76 (6) 1051-68. Ref: 168
Journal code: 8606068. ISSN: 0829-8211.
PUB. COUNTRY: Canada
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199909
ENTRY DATE: Entered STN: 19991005
Last Updated on STN: 19991005
Entered Medline: 19990922

AB Acquisition of cell type specific properties in the spinal cord is a process of sequential restriction in developmental potential. A multipotent **stem cell** of the nervous system, the neuroepithelial cell, generates central nervous system and peripheral nervous system derivatives via the generation of intermediate lineage restricted precursors that differ from each other and from neuroepithelial cells. Intermediate lineage restricted neuronal and glial precursors termed neuronal restricted precursors and glial restricted precursors, respectively, have been identified. **Differentiation** is influenced by extrinsic environmental signals that are stage and cell type specific. Analysis in multiple species illustrates similarities between chick, rat, mouse, and human cell **differentiation**. The utility of obtaining these precursor cell types for gene discovery, **drug screening**, and therapeutic applications is discussed.

PRIORITY APPLN. INFO: US 1998-22940 19980212; US 1997-844120 19970429; US 1998-216386 19981218; US 1998-213394 19981215; US 2001-988982 20011119

=> dis l6 1,7,8,10,11,13,17 ti ibib

L6 ANSWER 1 OF 18 MEDLINE on STN
TI Interferon-alpha and bcr-abl antisense oligodeoxynucleotides in combination enhance the antileukemic effect and the adherence of CML progenitors to preformed stroma.
ACCESSION NUMBER: 2000075875 MEDLINE
DOCUMENT NUMBER: 20075875 PubMed ID: 10609784
TITLE: Interferon-alpha and bcr-abl antisense oligodeoxynucleotides in combination enhance the antileukemic effect and the adherence of CML progenitors to preformed stroma.
AUTHOR: Bellucci R; Sala R; De Propris M S; Cordone I; de Fabritiis P
CORPORATE SOURCE: Dipartimento di Biotecnologie Cellulari ed Ematologia, University La Sapienza, Rome, Italy.
SOURCE: LEUKEMIA AND LYMPHOMA, **(1999 Nov)** 35 (5-6) 471-81.
Journal code: 9007422. ISSN: 1042-8194.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200002
ENTRY DATE: Entered STN: 20000229
Last Updated on STN: 20000229
Entered Medline: 20000214

L6 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2003 ACS on STN
TI Multipotential mesenchymal **stem cell** adipocyte differentiation by prolactin induction of CCAAT enhancer-binding protein-.beta. and peroxisome proliferator-activated receptor .gamma. expression and screening of adipocyte differentiation regulators
ACCESSION NUMBER: 2000:542169 CAPLUS
DOCUMENT NUMBER: 133:160251
TITLE: Multipotential mesenchymal **stem cell** adipocyte differentiation by prolactin induction of CCAAT enhancer-binding protein-.beta. and peroxisome proliferator-activated receptor .gamma. expression and screening of adipocyte differentiation regulators
INVENTOR(S): Wakao, Rika; Wakao, Hiroshi
PATENT ASSIGNEE(S): Helix Research Institute, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
JP 2000217576	A2	20000808	JP 1999-24625	19990202	<--
CA 2360684	AA	20000810	CA 2000-2360684	20000202	<--
WO 2000046348	A1	20000810	WO 2000-JP567	20000202	<--

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL,

TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1158044 A1 20011128 EP 2000-902056 20000202
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: JP 1999-24625 A 19990202
WO 2000-JP567 W 20000202

L6 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2003 ACS on STN
TI Tissue-specific promoters and transgenic animals for the screening of pharmaceuticals

ACCESSION NUMBER: 2000:314809 CAPLUS
DOCUMENT NUMBER: 132:343279
TITLE: Tissue-specific promoters and transgenic animals for the screening of pharmaceuticals
INVENTOR(S): Eckert, Richard L.; Crish, James F.
PATENT ASSIGNEE(S): Case Western Reserve University, USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 2000026343	A2	20000511	WO 1999-US25516	19991029	<--
W: AU, CA, JP, MX					
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
US 6313373	B1	20011106	US 1999-430201	19991029	

PRIORITY APPLN. INFO.: US 1998-106495P P 19981030

L6 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2003 ACS on STN
TI **Method** of identifying agents that block muscle atrophy

ACCESSION NUMBER: 1999:659576 CAPLUS
DOCUMENT NUMBER: 131:267027
TITLE: **Method** of identifying agents that block muscle atrophy
INVENTOR(S): Yancopoulos, George D.
PATENT ASSIGNEE(S): Regeneron Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9951983	A1	19991014	WO 1999-US7538	19990406	<--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					

AU 9934741 A1 19991025 AU 1999-34741 19990406 <--
PRIORITY APPLN. INFO.: US 1998-56459 19980407
WO 1999-US7538 19990406
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2003 ACS on STN
TI Assay for growth differentiation factor 9 and **method** for identifying agents that alter activity of GDF-9
ACCESSION NUMBER: 1999:641085 CAPLUS
DOCUMENT NUMBER: 131:282014
TITLE: Assay for growth differentiation factor 9 and **method** for identifying agents that alter activity of GDF-9
INVENTOR(S): Matzuk, Martin M.; Elvin, Julia A.; Wang, Pei
PATENT ASSIGNEE(S): Baylor College of Medicine, USA
SOURCE: PCT Int. Appl., 75 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9950672	A1	19991007	WO 1999-US7210	19990401 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2325019	AA	19991007	CA 1999-2325019	19990401 <--
AU 9933777	A1	19991018	AU 1999-33777	19990401 <--
AU 753793	B2	20021031		
EP 1066528	A1	20010110	EP 1999-915200	19990401
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002510055	T2	20020402	JP 2000-541529	19990401
NZ 507484	A	20030630	NZ 1999-507484	19990401

PRIORITY APPLN. INFO.: US 1998-80385P P 19980401
WO 1999-US7210 W 19990401
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2003 ACS on STN
TI A process to study changes in **gene expression** in **stem cells**
ACCESSION NUMBER: 1999:172635 CAPLUS
DOCUMENT NUMBER: 130:219155
TITLE: A process to study changes in **gene expression** in **stem cells**
INVENTOR(S): Liu, Meng; Baskaran, Namadev; Weissman, Sherman M.
PATENT ASSIGNEE(S): Yale University, USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9910535	A1	19990304	WO 1998-US17283	19980821 <--
W: AU, CA, IL, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9892002	A1	19990316	AU 1998-92002	19980821 <--

PRIORITY APPLN. INFO.: US 1997-56861P P 19970822
WO 1998-US17283 W 19980821

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 18 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN
TI Producing cell clone libraries useful to identify new genes, such as tumor suppressor genes, and in **drug screening**.

ACCESSION NUMBER: 1999-611299 [52] WPIDS
DOC. NO. NON-CPI: N1999-450402
DOC. NO. CPI: C1999-178074
TITLE: Producing cell clone libraries useful to identify new genes, such as tumor suppressor genes, and in **drug screening**.
DERWENT CLASS: B04 D16 P14
INVENTOR(S): KURZCHALIA, T
PATENT ASSIGNEE(S): (PLAC) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN
COUNTRY COUNT: 86
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9953031	A2	19991021	(199952)*	EN	34 <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW					
AU 9937070	A	19991101	(200013)		<--

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9953031	A2	WO 1999-EP2391	19990408
AU 9937070	A	AU 1999-37070	19990408

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9937070	A	Based on	WO 9953031

PRIORITY APPLN. INFO: DE 1998-19815590 19980408

=> dis his

(FILE 'HOME' ENTERED AT 14:57:38 ON 21 AUG 2003)

FILE 'BIOSIS' ENTERED AT 14:58:02 ON 21 AUG 2003

FILE 'CAPLUS' ENTERED AT 15:00:11 ON 21 AUG 2003
L1 3996 S (?DRUG?(W)?SCREEN?) AND (?GENE?(W)?EXPRESS?)

```
L2          198 S L1 AND (?STEM?(W)?CELL?)

     FILE 'STNGUIDE' ENTERED AT 15:04:13 ON 21 AUG 2003

     FILE 'CAPLUS' ENTERED AT 15:09:55 ON 21 AUG 2003
L3           24 S L2 AND 1980<=PY<=2000
L4      3236105 S METHOD
L5           14 S L3 AND L4

     FILE 'MEDLINE, BIOSIS, EMBASE, CAPLUS, SCISEARCH, WPIDS' ENTERED AT
     15:14:03 ON 21 AUG 2003
L6           18 S L3 AND L4

=>

---Logging off of STN---


=>
Executing the logoff script...


=> LOG Y

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    88.87     160.21

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00      -0.65

STN INTERNATIONAL LOGOFF AT 15:27:31 ON 21 AUG 2003
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     (FILE 'HOME' ENTERED AT 14:01:09 ON 21 AUG 2003)

     FILE 'HCAPLUS' ENTERED AT 14:01:24 ON 21 AUG 2003
L1          3996 SEA ABB=ON  (?DRUG?(W)?SCREEN?) AND (?GENE?(W)?EXPRESS?)
L2           188 SEA ABB=ON  L1 AND ?DIFFERENTIAT?
L3            51 SEA ABB=ON  L2 AND (?STEM?(W)?CELL? OR ?MURINE?)
L4            25 SEA ABB=ON  L3 AND ?EMBRYO?
                 D IBIB ABS L4 1-25

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     14:07:19 ON 21 AUG 2003
L5            10 SEA ABB=ON  L4
L6            10 DUP REMOV L5 (0 DUPLICATES REMOVED)
                 D IBIB ABS L6 1-10
                 D QUE STAT L4
                 D QUE STAT L6


     FILE HOME

     FILE HCAPLUS

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     FILE COVERS 1907 - 21 Aug 2003  VOL 139 ISS 8
     FILE LAST UPDATED: 20 Aug 2003  (20030820/ED)

      This file contains CAS Registry Numbers for easy and accurate
      substance identification.


     FILE MEDLINE
      FILE LAST UPDATED: 20 AUG 2003 (20030820/UP).  FILE COVERS 1958 TO DATE.
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=> d his

     (FILE 'HOME' ENTERED AT 10:26:09 ON 21 AUG 2003)

     FILE 'HCAPLUS' ENTERED AT 10:26:18 ON 21 AUG 2003
                E TERADA NAOHIRO/AU
L1            65 S E3
                E HAMAZAKI TAKASHI/AU
L2            20 S E3
L3             3 S L1 AND L2
L4          3996 S (?DRUG?(W)?SCREEN?) AND (?GENE?(W)?EXPRESS?)
L5           188 S L4 AND ?DIFFERENTIAT?
L6            51 S L5 AND (?STEM?(W)?CELL? OR ?MURINE?)
L7             8 S L6 AND ?EMBRYON?

     FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO' ENTERED AT
     10:44:16 ON 21 AUG 2003
L8             9 S L7
L9             9 DUP REMOV L8 (0 DUPLICATES REMOVED)

     FILE 'HCAPLUS' ENTERED AT 10:49:52 ON 21 AUG 2003
```

d ibib abs L7 1-8 will capture CA Plus

Then

file ——— — ——— ——— ——— ———

d ibib abs L9 1-9